

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-2 (canceled)

1           **Claim 3 (currently amended):** ~~The method of any of~~  
2   ~~claims 1 and 2,~~ A method for producing a semi-conducting  
3   device comprising at least a first layer doped with a  
4   doping agent and a second layer deposited on said first  
5   doped layer in a single reaction chamber, wherein the  
6   deposition steps of said first and second layers are  
7   separated by an operation for avoiding the contamination of  
8   said second layer by the doping agent, wherein said  
9   operation comprises a dosing of the reaction chamber with  
10   a vapour or gas comprising water, methanol, isopropanol or  
11   another alcohol.

1           **Claim 4 (currently amended):** ~~The method of claims 1~~  
2   ~~and 2,~~ A method for producing a semi-conducting device  
3   comprising at least a first layer doped with a doping agent  
4   and a second layer deposited on said first doped layer in  
5   a single reaction chamber, wherein the deposition steps of  
6   said first and second layers are separated by an operation  
7   for avoiding the contamination of said second layer by the

8    doping agent, wherein said operation comprises a dosing of  
9    the reaction chamber with a vapour or gas comprising  
10   ammonia, hydrazine or volatile organic amine.

1            **Claim 5 (previously presented):** The method of claim  
2    3, wherein said dosing is performed at around 0.05 to 100  
3    mbar and between 100 and 350°C for less than 10 minutes.

1            **Claim 6 (currently amended):** The method of claim  
2    [[1]] 3, wherein the doped layer is a p-doped layer.

1            **Claim 7 (currently amended):** The method of claim  
2    [[1]] 3, wherein the doped layer is a n-doped layer.

1            **Claim 8 (original):** The method of claim 6, wherein  
2    said operation is followed by the deposition of a buffer  
3    layer on the p-layer.

1            **Claim 9 (currently amended):** The method of claim  
2    [[2]] 3, wherein said dosing is followed by a pumping at  
3    high vacuum and between 100 and 350°C for less than 5  
4    minutes.

**Claims 10-13 (canceled)**

1           **Claim 14 (currently amended):**   The method of claim  
2   [[1]] 3, wherein said doping agent on the surface of a  
3   substrate is transformed into stable chemical compounds.

1           **Claim 15 (previously presented):**   The method of claim  
2   4, wherein said dosing is performed at around 0.05 to 100  
3   mbar and between 100 and 350°C for less than 10 minutes.

1           **Claim 16 (new):**   The method of claim 4, wherein said  
2   doping agent comprises trimethylborane.